

REPLACED BY
ART 34 AMDT

animal and vegetable oils as fuel.

The present invention is provided through taking the above-mentioned disadvantages of the combustor of the prior art into consideration. Accordingly, the object of the present invention is to provide a combustor of newly developed arrangement suitable for combusting animal and vegetable oils.

Summary of the Invention

These and other objects are achieved by a combustor for combusting animal and vegetable oils of a first aspect comprising; a burner tile, a means for supplying animal and vegetable oils into the burner tile in the form of atomized fuel, and a means for forming the field of centrifugal force within the burner tile under the effect of the turning current, whereby animal and vegetable oils are combusted within the field of centrifugal force in the burner tile.

There is provided a combustor of a second aspect, in addition to the features of the first aspect, wherein the means for supplying animal and vegetable oils is arranged to deliver the atomized fuel toward the axially central area of the turning air current.

There is provided a combustor of a third aspect, in addition to the features of the first or second aspect, further comprising a means for adjusting the mass of the fuel droplets to be atomized, whereby the delivered and separated by the central force effect, atomized fuel are prevented from contacting with the inner surface of the burner tile.

There is provided a combustor of a fourth aspect, in addition to the features of any one of the first or third aspects, wherein the burner tile is of a cylindrical configuration.

There is provided a combustor of a fifth aspect, in addition to the features of the first or fourth aspects, further comprising a means for adjusting the position of the ignition flame in the central area of the burner tile.

There is provided a combustor of a sixth aspect, in addition to the features of the first or fifth aspects, further comprising a means for introducing a straight-line air current into the burner tile, which straightly flows in the vicinity of the burner nozzle toward the opening of the burner tile.

There is provided a combustor of a seventh aspect, in addition to the features of the sixth aspect, further comprising a means for adjusting the pressure and the flow rate of the straight-line air current relative to the turning air current.

There is provided a combustor of an eight aspect, in addition to the features of the first or seventh aspects, further comprising an ignition burner capable of providing sufficient heat energy for allowing continuous propagation of combustion of the animal and vegetable oils.

Brief description of the drawings

Further feature of the present invention will become apparent to those skilled in the art to which the present invention relates from reading the following specification with reference to the accompanying drawings, wherein:

Fig. 1 is a perspective view showing the combustor for combusting animal and vegetable oils of an embodiment of the present invention;

Fig. 2 is a cross-sectional view showing the combustor of Fig. 1;

Fig. 3 is a diagrammatic cross sectional view showing the

*REPLACED BY
ART 34 AMDT*

What is claimed is,

1. A combustor for combusting animal and vegetable oils comprising:
 - a burner tile,
 - a means for supplying animal and vegetable oils into the burner tile in the form of atomized fuel, and
 - a means for forming the field of centrifugal force within the burner tile under the effect of the turning air current,
 - whereby animal and vegetable oils are combusted within the field of centrifugal force in the burner tile.
2. The combustor according to claim 1, wherein the means for supplying animal and vegetable oils is arranged to deliver the atomized fuel toward the axially central area of the turning air current.
3. The combustor according to claim 1 or 2, further comprising a means for adjusting the mass of the fuel droplets to be atomized, whereby the delivered and separated by the central force effect, atomized fuel are prevented from contacting with the inner surface of the burner tile.
4. The combustor according to any one of claims 1 to 3, wherein the burner tile is of a cylindrical configuration.
5. The combustor according to any one of claims 1 to 4, further comprising a means for adjusting the position of the ignition flame in the central area of the burner tile.
6. The combustor according to any one of claims 1 to 5, further comprising a means for introducing a straight-line air current into the burner tile, which straightly flows in the vicinity of the burner nozzle toward the opening of the burner tile.
7. The combustor according to claim 6, further comprising a means for

adjusting the pressure and the flow rate of the straight-line air current relative to the turning air current.

8. The combustor according to any one of claims 1 to 7, further comprising an ignition burner capable of providing sufficient heat energy for allowing continuous propagation of combustion of the animal and vegetable oils.